

ATTACHMENT C-2-1

INSTITUTE PLANT WASTE ANALYSIS PLAN

The Institute Plant's Waste Analysis Plan (WAP) is used to properly classify hazardous wastes managed in the on-site permitted facility. In general, samples are collected in accordance with good laboratory practices using standard EPA sampling methodology such as Part 261, Appendix I, II, and III and EPA SW-846. Where applicable, analyses are performed in accordance with EPA acceptable methods and in particular those defined in EPA SW-846. Each parameter is selected to properly characterize the waste and to ensure, where applicable, the LDR requirements of Part 268 are met. The references to "landban" in these tables refer to LDR requirements of part 268, including 268.40 to 268.48. QA/QC analyses are performed as specified by the analytical methods to ensure the quality and accuracy of the analytical data. Chain-of-Custody forms accompany each sample collected. Process knowledge and historical knowledge can be used in place of, or to supplement identification and coding of all wastes. Proper documentation will be maintained by each facility.

The following tables describe the parameters, test methods, sampling methods, and frequency of analysis required for those wastes managed in the permitted facility.

Goff Mountain Landfill Filter Cake From WWTU (2)

Parameter	Sample Type	Analytical Method ⁽¹⁾	Frequency
Volatile Organics - includes Appendix IX, "F-039 list", and priority pollutants	Grab	5030B/5030C/ 5035A/8260B	1/year
Semi-Volatile Organics - including Appendix IX, "F-039 list", and priority pollutants	Grab	3540C/3546/ 8270C	1/year
Metals - Appendix IX	Grab	3051A/6010B/ 6020/7000A/ 7471/7471A	1/year
Free Liquids	Grab	9095A	1/year

- (1) Test Methods for Evaluation of Solid Wastes, SW-846 - 3rd Edition (including updates, revisions, or new editions requiring changes in the analytical method).
- (2) Filter cake is typically considered F039 and tested for LDR compliance in accordance with this table.

Additional Hazardous Wastes to Goff Mountain Landfill

Parameter ⁽¹⁾⁽⁴⁾	Sample Type	Analytical Method ⁽²⁾	Frequency ⁽³⁾
Volatile Organics - including Appendix IX, "F-039 list", and priority pollutants	Grab	5030B/5030C/ 5035A/8260B	1/year
Semi-Volatile Organics - including Appendix IX, "F-039 list", and priority pollutants	Grab	3540C/3546/ 8270C	1/year
Metals - Appendix IX	Grab	3051A/6010B/ 6020/7000A/ 7471/7471A	1/year
Free Liquids	Grab	9095A	1/year
Ignitability ⁽⁴⁾	Grab	1010	1/year
Corrosivity ⁽⁴⁾	Grab	9045C	1/year
Toxicity Characteristics ⁽⁴⁾	Grab	1311	1/year

- (1) Parameters for other waste such as wastes with multiple codes will be selected to ensure they are properly managed, including where applicable, LDR compliance and all underlying hazardous constituents.
- (2) Test Methods for Evaluation of Solid Wastes, SW-846 - 3rd Edition (including updates, revisions, or new editions requiring changes in the analytical method).
- (3) For routine wastes, the frequency will be once per year. The frequency for non-routine wastes will be as generated.
- (4) Any characteristic hazardous waste destined for land disposal will be retreated and retested as necessary to meet LDR standards. If any waste displays a characteristic for the first time, such codes will be added to all notifications and facility records.

Attachment 1

Institute Plant Hazardous Waste Codes						
Hazardous Waste Code	Waste Description	Waste Management Unit X Marks Possible Codes Which May Be Present At Anytime And In Any Combination				
D Listed:		Goff Mountain Landfill				
D001	Ignitable	X				
D002	Corrosive	X				
D003	Reactive					
D004	Arsenic	X				

D005	Barium	X				
D006	Cadmium	X				
D007	Chromium	X				
D008	Lead	X				
D009	Mercury	X				
D010	Selenium					
D011	Silver	X				
D012	Endrin					
D013	Lindane	X				
D014	Methoxychlor	X				
D015	Toxaphene					
D018	Benzene					
D019	Carbon Tetrachloride					
D020	Chlordane					
D021	Chlorobenzene					
D022	Chloroform					
D023	o-Cresol					
D024	m-Cresol					
D025	p-Cresol					
D026	Cresol					
D027	1,4-Dichlorobenzene					
D028	1,2-Dichlorobenzene					
D029	1,1-Dichloroethylene					
D030	2,4-Dinitrotoluene					
D031	Heptachlor (and its epoxide)	X				
D032	Hexachloride					
D033	Hexachlorobutadiene					
D034	Hexachloroethane					
D035	Methyl Ethyl Ketone					
D036	Nitrobenzene					
D038	Pyridine					
D039	Tetrachloroethylene					
D040	Trichloroethylene					
D043	Vinyl Chloride					

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Hazardous Waste Code	Waste Description	Waste Management Unit X Marks Possible Codes Which May Be Present At Anytime And In Any Combination				
F Listed:		Goff Mountain Landfill				
F001	Spent Halogenated Solvents					
F002	Spent Halogenated Solvents	X				
F003	Spent Non-Halogenated Solvents	X				
F004	Spent Non-Halogenated Solvents					
F005	Spent Non-Halogenated Solvents	X				
F039	Multi-Source Leachate	X				
K Listed:						
K156	Organic Wastes from Carbamates Production	X				
K157	Wastewaters from Carbamates Production	X				
K158	Baghouse Dust and Filter/Separation from Carbamates Production	X				
P Listed:						
P003	Acrolien					
P012	Arsenic Trioxide	X				
P022	Carbon Disulfide	X				
P059	Heptachlor (and its epoxide)	X				
P063	Hydrogen Cyanide					
P064	Methyl Isocyanate	X				
P066	Methomyl	X				
P070	Aldicarb	X				
P073	Nickel Carbonyl					
P095	Phosgene	X				
P123	Toxaphene					
P127	Carbofuran	X				
P128	Mexacarbate	X				
P189	Carbosulfan	X				
P194	Oxamyl	X				
P199	Methiocarb	X				

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Institute Plant Hazardous Waste Codes						
Hazardous Waste Code	Waste Description	Waste Management Units X Marks Possible Codes Which May Be Present At Anytime And In Any Combination				
U Listed:		Goff Mountain Landfill				
U001	Acetaldehyde	X				
U002	Acetone	X				
U003	Acetonitrile	X				
U004	Acetophenone	X				
U009	Acrylonitrile					
U012	Aniline	X				
U019	Benzene	X				
U021	Benzidine					
U028	Bis (2-Ethyl Hexyl) Phthalate	X				
U031	Butanol					
U036	Chlordane					
U037	Chlorobenzene	X				
U044	Chloroform	X				
U048	4-Chlorophenol	X				
U050	Chrysene					
U052	Cresol	X				
U056	Cyclohexane	X				
U057	Cyclohexanone	X				
U069	Dibutyl Phthalate	X				
U070	o-Dichlorobenzene	X				
U073	3,3-Dichloro Benzidine	X				
U075	Dichlorodifluoromethane	X				
U080	Dichloromethane (DCM)	X				
U088	o-Diethylphthalate	X				
U091	3,3-Dimethoxybenzidine	X				
U092	Dimethylamine	X				
U102	Dimethyl Phthalate	X				
U105	2,4-Dinitrotoluene	X				
U106	2,6-Dinitrotoluene,	X				
U107	Di-n-octyl phthalate					
U108	1,4-Dioxane	X				
U112	Ethyl Acetate	X				

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Institute Plant Hazardous Waste Codes						
Hazardous Waste Code	Waste Description	Waste Management Units X Marks Possible Codes Which May Be Present At Anytime And In Any Combination				
U Listed Continued:		Goff Mountain Landfill				
U113	Ethyl Acrylate	X				
U115	Ethylene Oxide					
U117	Ethyl Ether	X				
U121	Trichlorofluoromethane	X				
U122	Formaldehyde	X				
U134	Hydrofluoric Acid					
U135	Hydrogen Sulfide	X				
U147	Maleic Anhydride					
U154	Methanol	X				
U159	Methyl Ethyl Ketone	X				
U161	Methyl Isobutyl Ketone	X				
U165	Naphthalene	X				
U169	Nitrobenzene	X				
U182	Paraldehyde	X				
U188	Phenol	X				
U190	Phthalic Anhydride	X				
U191	2-Picoline	X				
U196	Pyridine	X				
U210	Tetrachloroethylene	X				
U211	Carbon Tetrachloride	X				
U220	Toluene	X				
U221	Toluenediamine					
U223	Toluene Diisocyanate	X				
U226	1,1,1-Trichlorethane					
U227	1,1,2-Trichlorethane					
U239	Xylene	X				
U247	Methoxychlor					
U279	Carbaryl	X				
U404	Triethylamine					
U410	Thiodicarb (LARVIN®)	X				
U411	Propoxur	X				